

Inputs					Outputs (corresponding to segments)							
x_3	x_2	x_1	x_0		a	b	c	d	e	f	g	display
0	0	0	0		1	1	1	1	1	1	0	0
0	0	0	1		0	1	1	0	0	0	0	1
0	0	1	0		1	1	0	1	1	0	1	2
0	0	1	1		1	1	1	1	0	0	1	3
0	1	0	0		0	1	1	0	0	1	1	4
0	1	0	1		1	0	1	1	0	1	1	5
0	1	1	0		0	0	1	1	1	1	1	6
0	1	1	1		1	1	1	0	0	0	0	7
1	0	0	0		1	1	1	1	1	1	1	8
1	0	0	1		1	1	1	0	0	1	1	9

FIGURE 1

$$\begin{aligned}
 a &= \bar{x}_0 \bar{x}_3 \bar{c} + \bar{x}_1 c \\
 b &= \bar{x}_0 (\bar{x}_1 \bar{x}_2 + x_1 \bar{x}_3) \\
 c &= x_0 x_2 \bar{x}_3 + \bar{x}_2 (\bar{x}_1 x_3 + e) \\
 d &= x_1 \bar{x}_2 \bar{x}_3 + a (x_2 + x_3) \\
 e &= x_0 \bar{x}_3 d + b \\
 f &= \bar{x}_2 c + \bar{x}_3 \bar{e} \\
 g &= x_0 \bar{x}_3 + a
 \end{aligned}$$

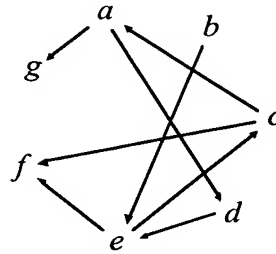


FIGURE 2

$$\begin{aligned}
 a &= c &= 0 \\
 b &= 0 \\
 c &= e &= 0 \\
 d &= 0 &= 0 \\
 e &= b + d &= 0 \\
 f &= \bar{e} + c &= 1 \\
 g &= 1
 \end{aligned}$$

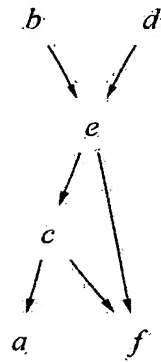


FIGURE 3

$$\begin{array}{lll} a & = c & = 1 \\ b & = 0 & \\ c & = 1 & \\ d & = a & = 1 \\ e & = b + d & = 1 \\ f & = \bar{e} & = 0 \\ g & = 1 & \end{array}$$

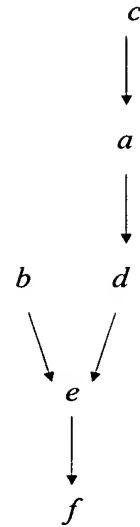


FIGURE 4

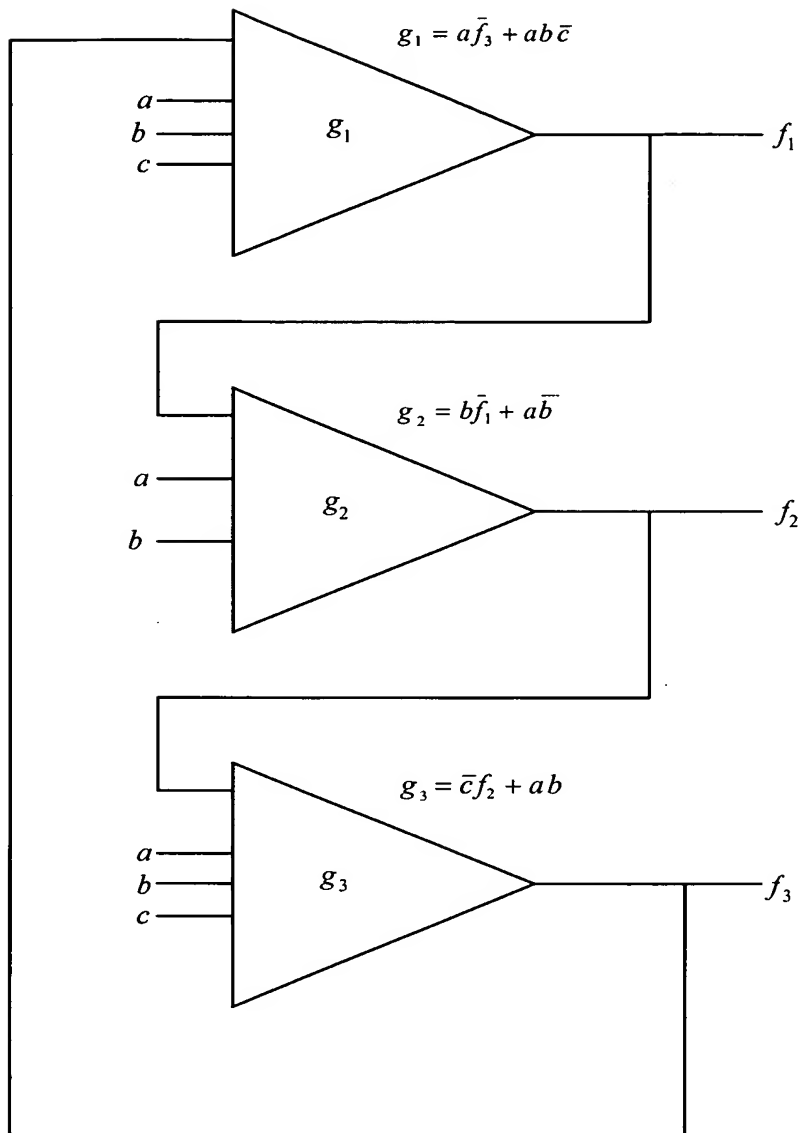


FIGURE 5

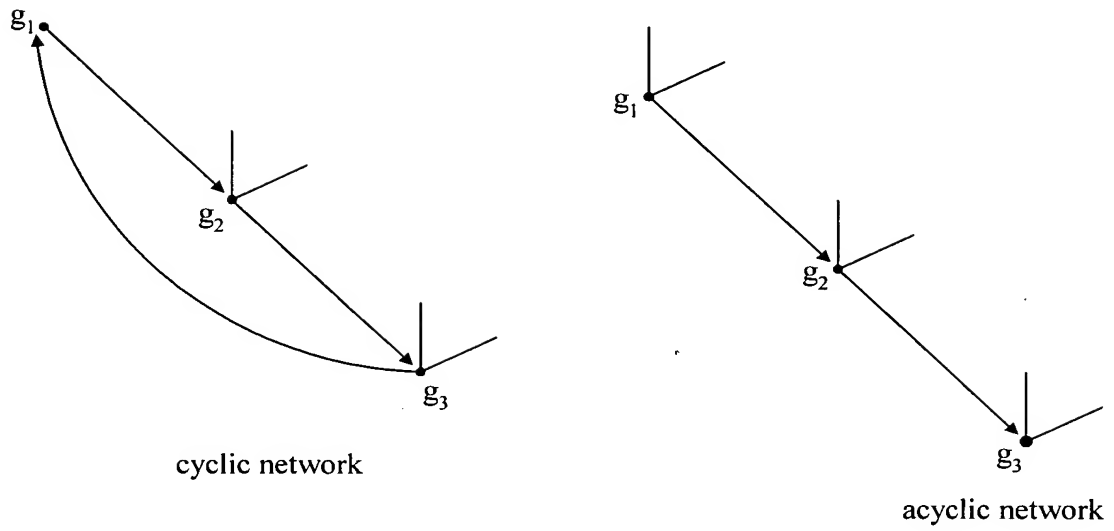


FIGURE 6

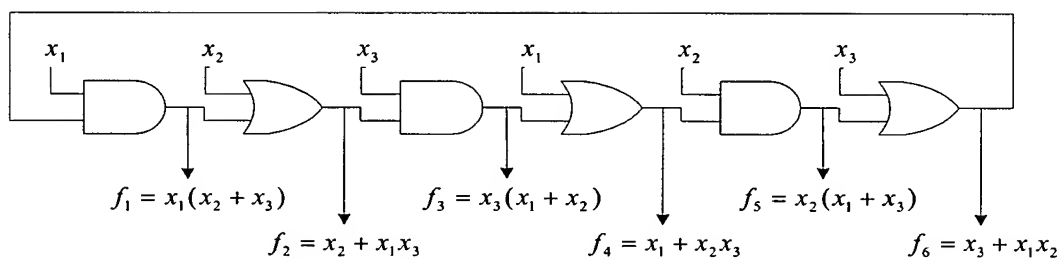


FIGURE 7

$$\begin{aligned}f_1 &= \bar{x}_2 x_3 + \bar{f}_2 f_3 \\f_2 &= \bar{x}_1 \bar{x}_2 \bar{x}_3 + x_1 \bar{f}_3 \\f_3 &= \bar{x}_3 (\bar{x}_1 + \bar{x}_2) + \bar{x}_1 \bar{x}_2\end{aligned}$$

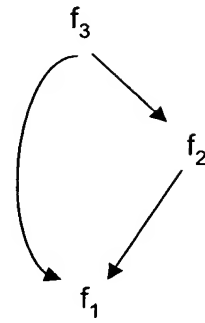


FIGURE 8

$$\begin{aligned}f_1 &= \bar{x}_2 x_3 + \bar{f}_2 f_3 \\f_2 &= x_1 \bar{f}_3 + \bar{x}_3 \bar{f}_1 \\f_3 &= f_1 \bar{f}_2 + \bar{x}_2 \bar{x}_3\end{aligned}$$

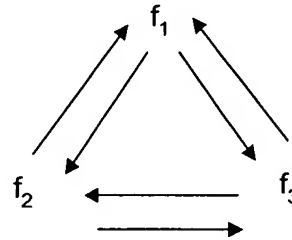


FIGURE 9

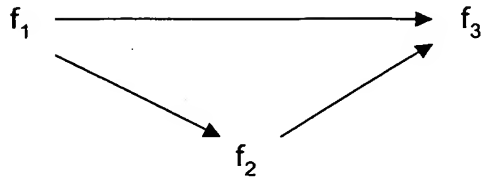


FIGURE 10

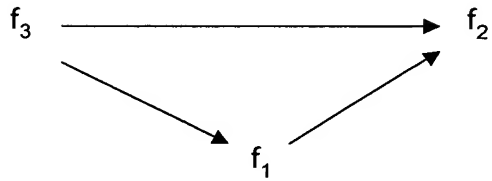


FIGURE 11

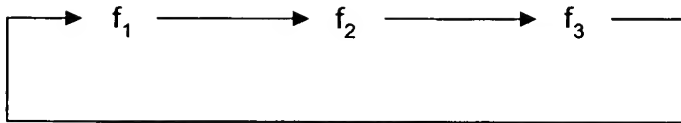


FIGURE 12

f_1	f_1	f_1
$\{f_2, f_3\} : g_1^{(1)}$	$\{f_2, f_3\} : g_1^{(1)}$	$\{f_2, f_3\} : g_1^{(1)}$
$\{f_2\} : g_1^{(2)}$	$\{f_2\} : g_1^{(2)}$	$\{f_2\} : g_1^{(2)}$
$\{f_3\} : g_1^{(3)}$	$\{f_3\} : g_1^{(3)}$	$\{f_3\} : g_1^{(3)}$
$0 : f_1$	$0 : f_1$	$0 : f_1$

FIGURE 13

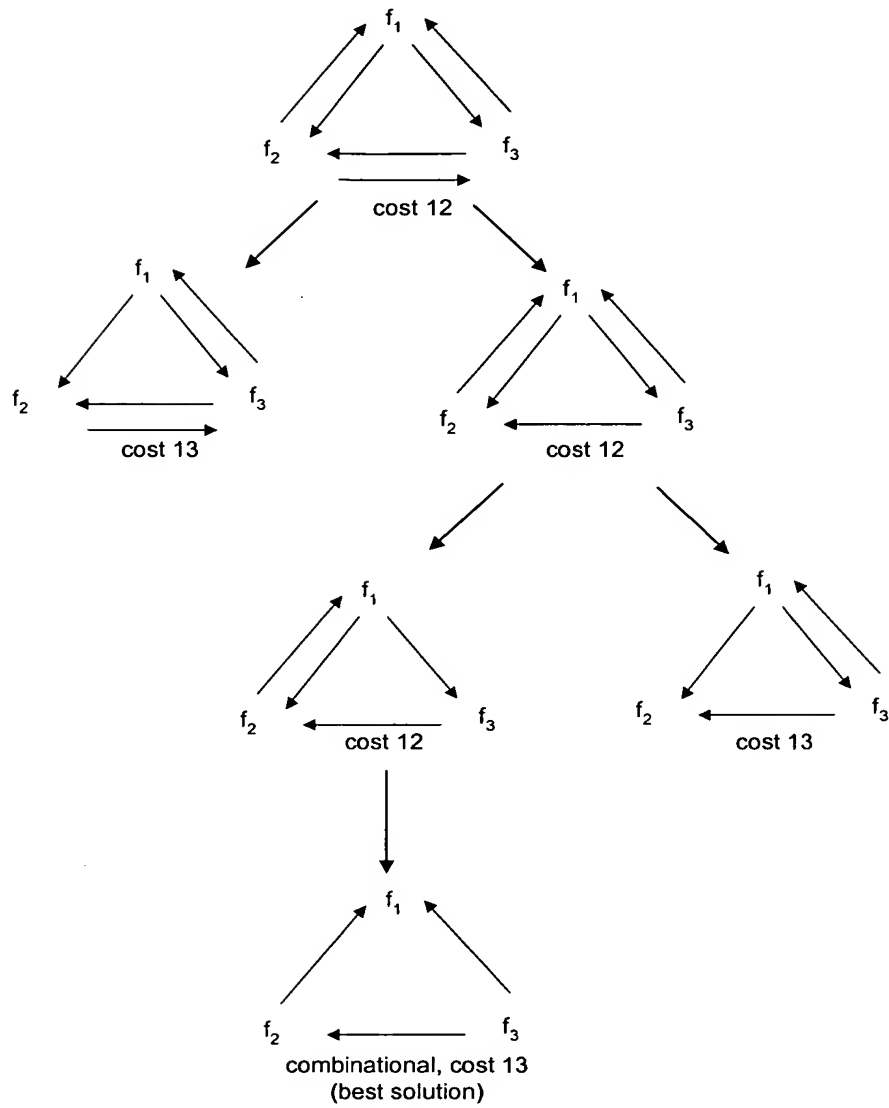


FIGURE 14

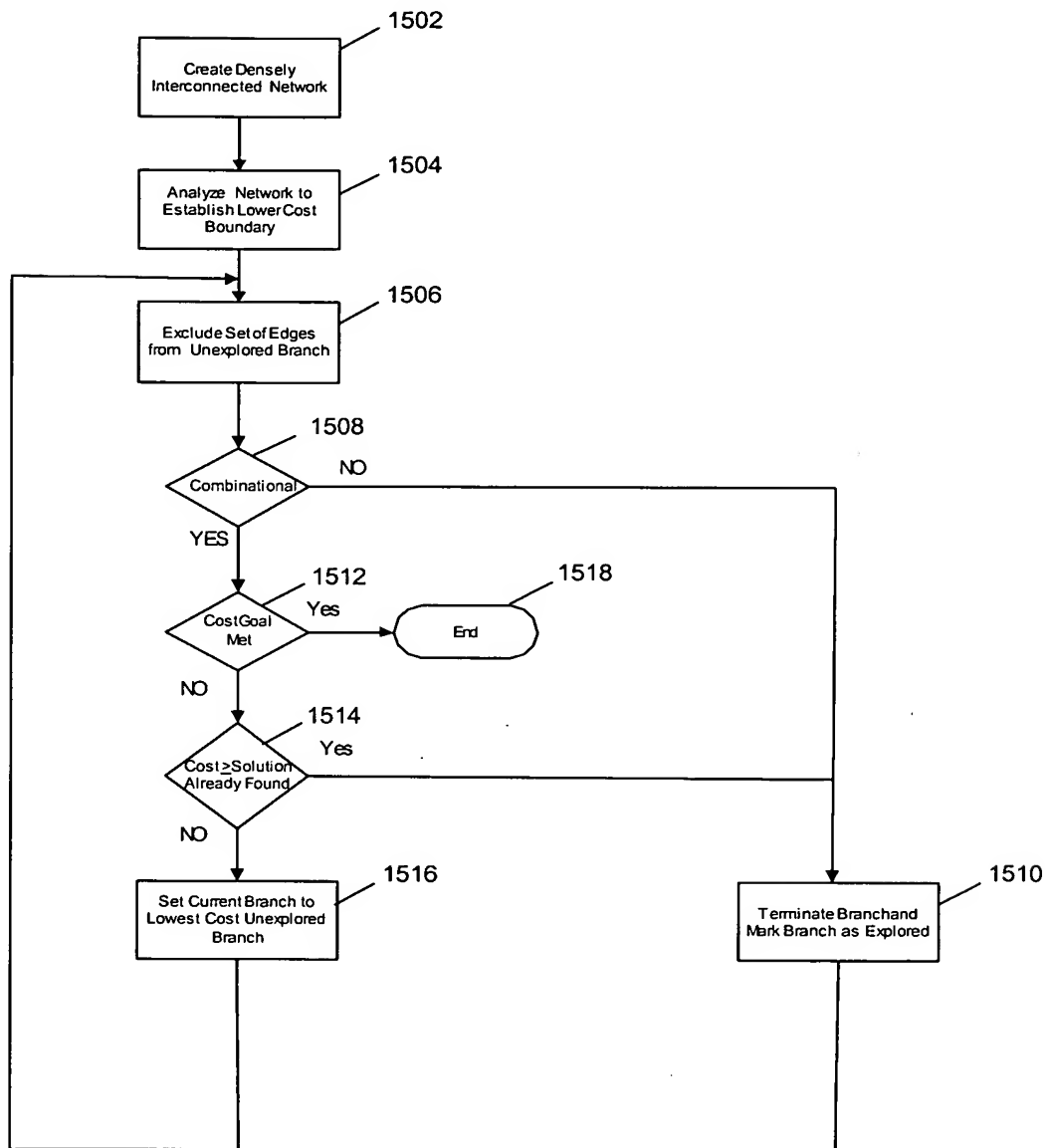


FIGURE 15

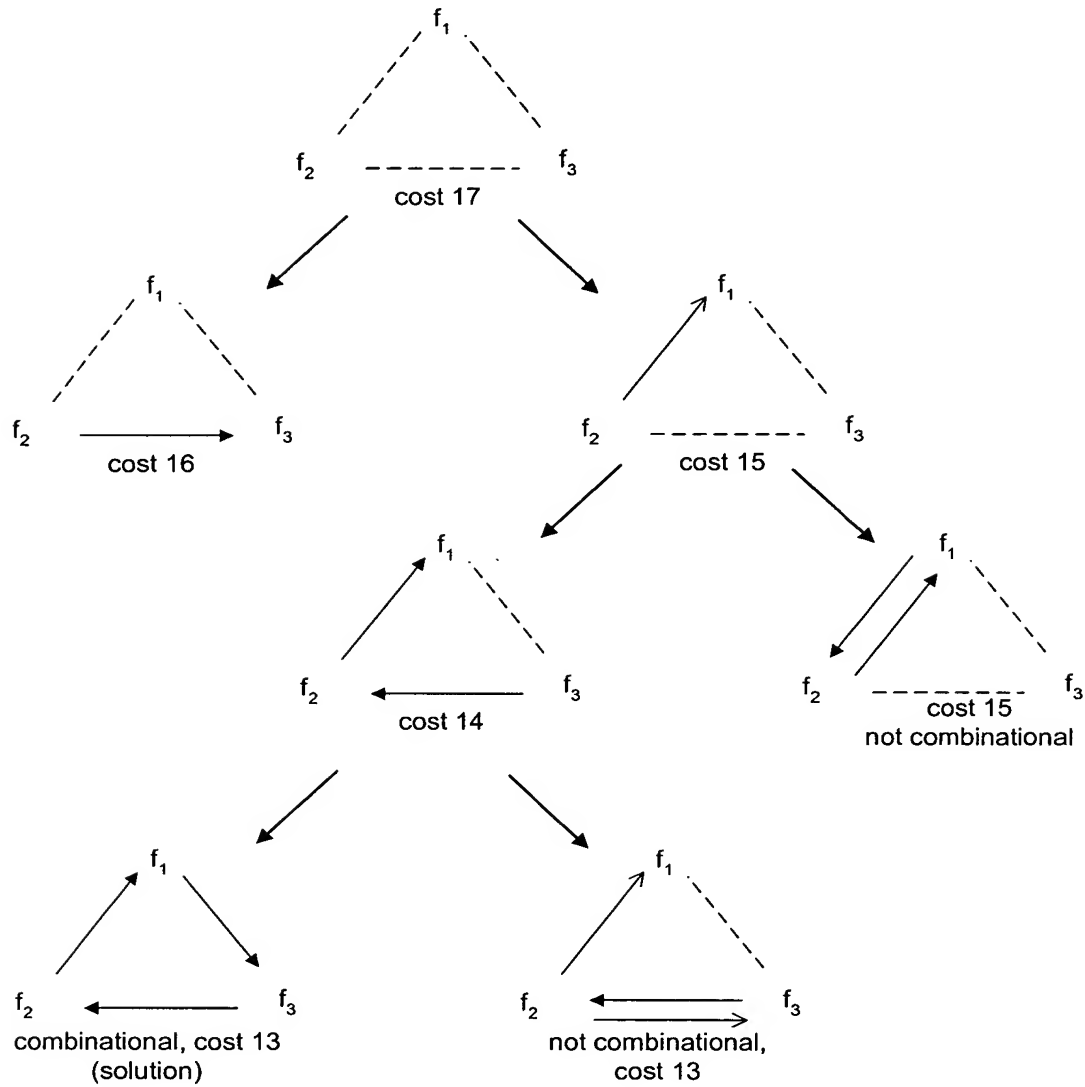


FIGURE 16

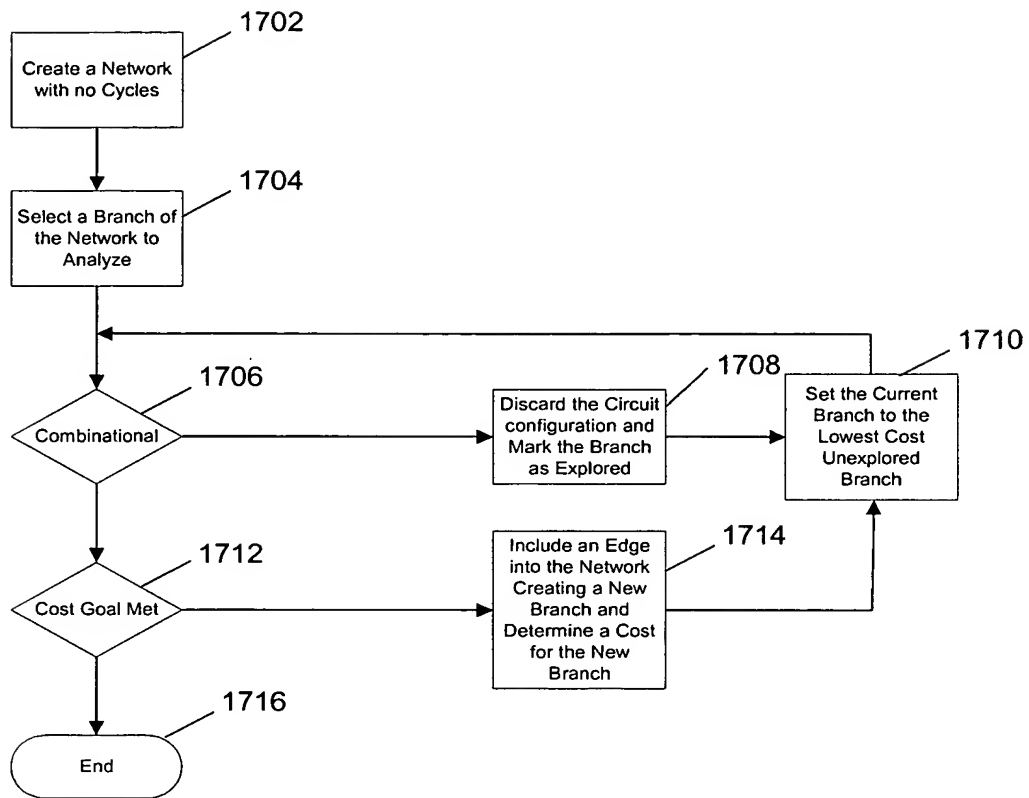


FIGURE 17

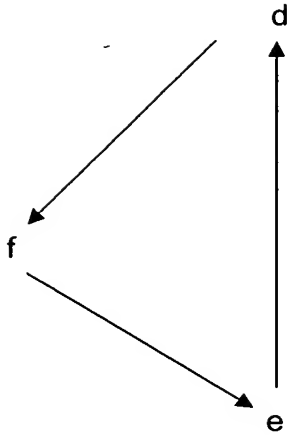


FIGURE 18

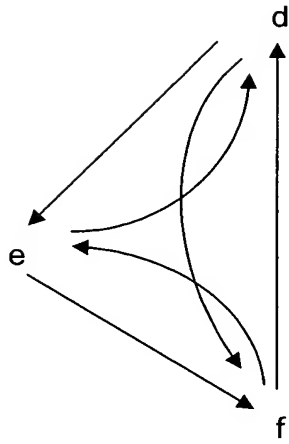


FIGURE 19

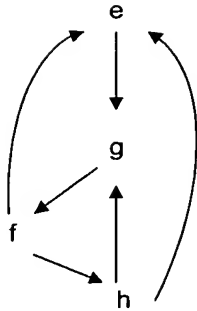


FIGURE 20A

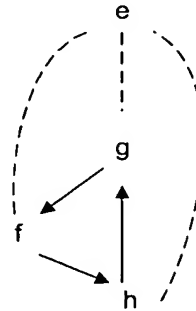


FIGURE 20B

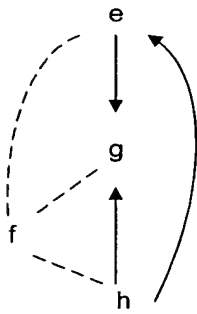


FIGURE 20C

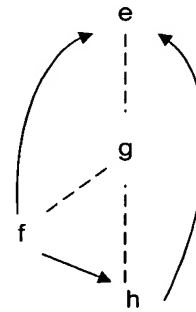


FIGURE 20D

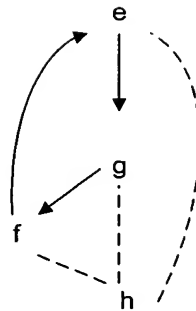


FIGURE 20E

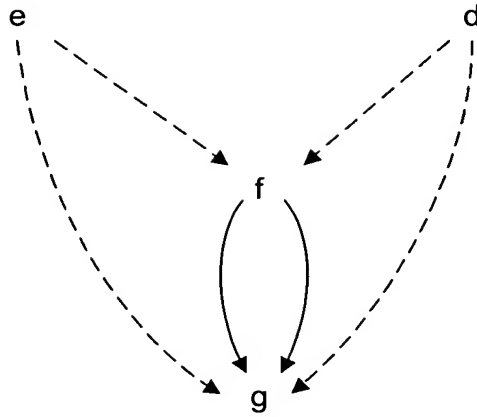


FIGURE 21

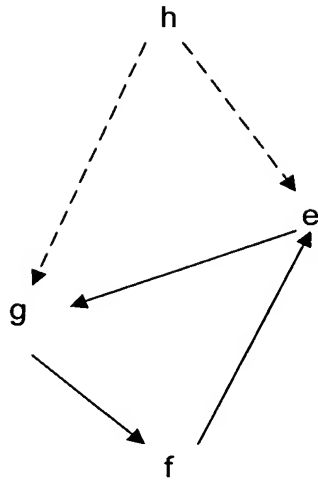


FIGURE 22

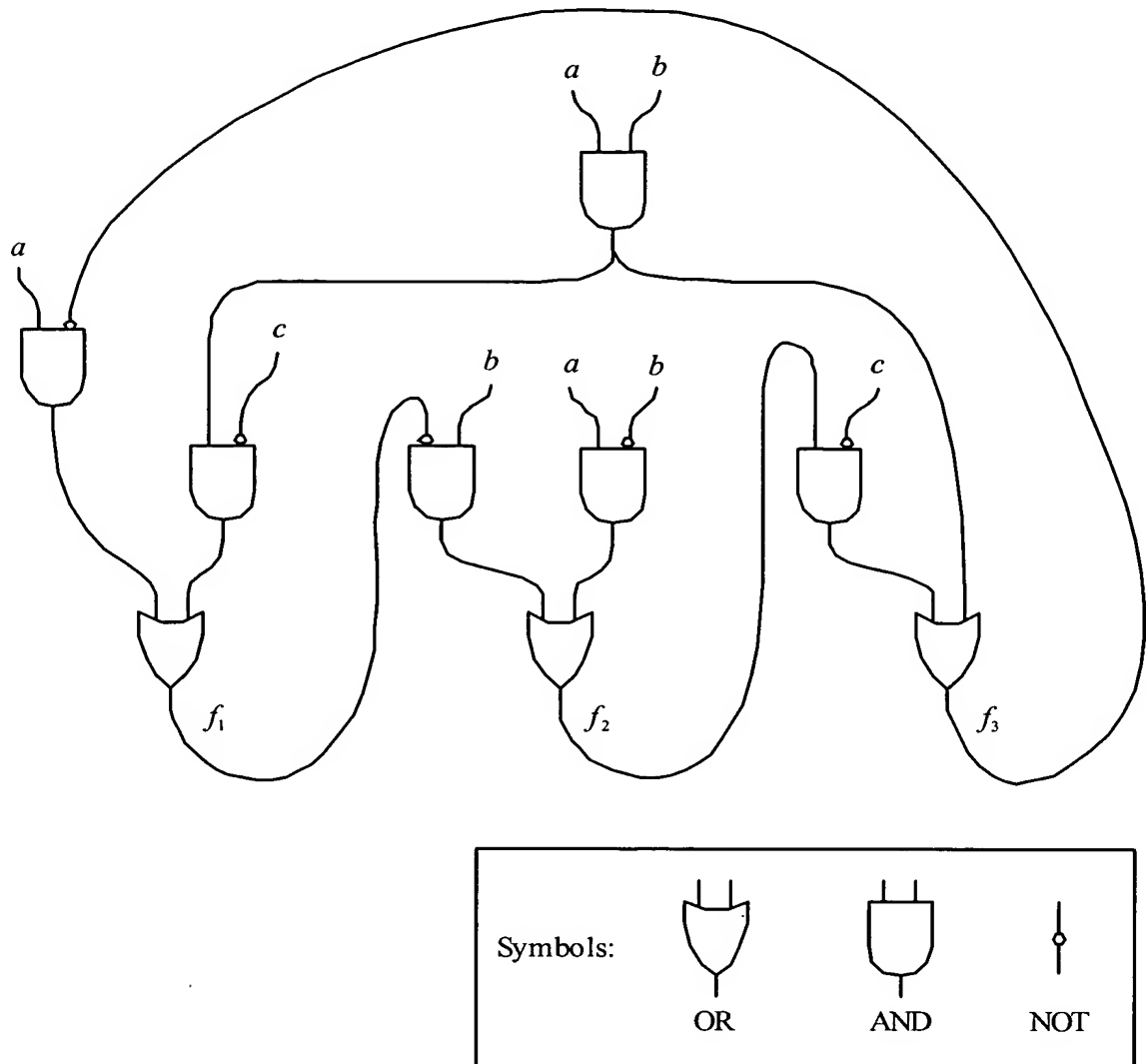


FIGURE 23

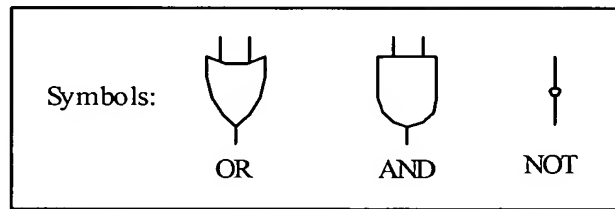
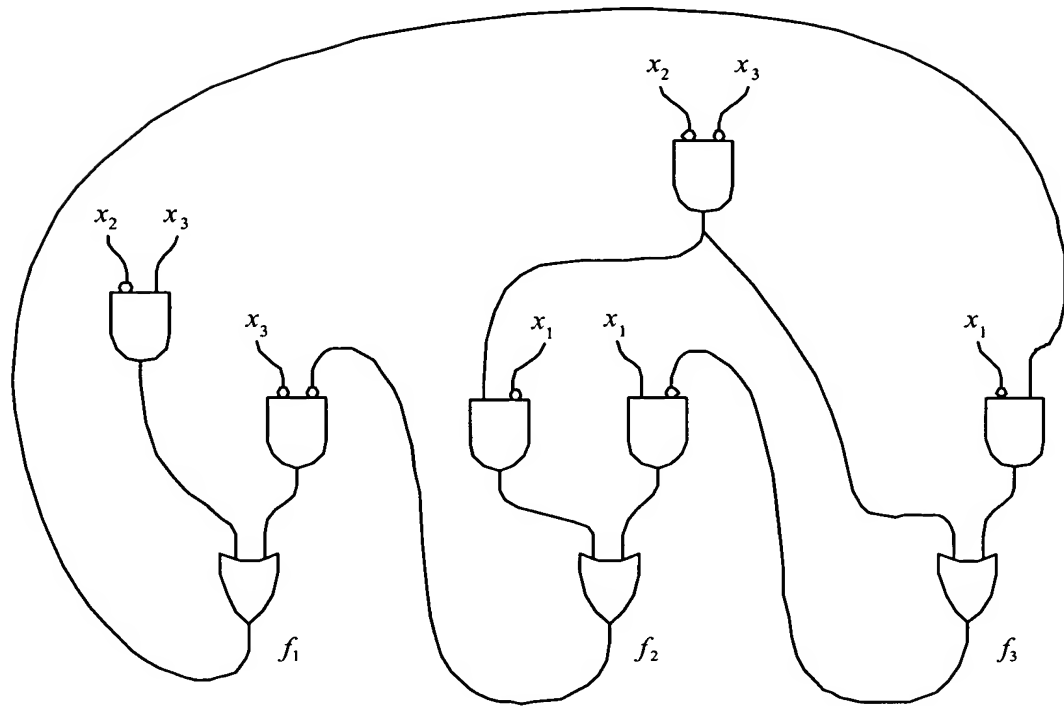


FIGURE 24

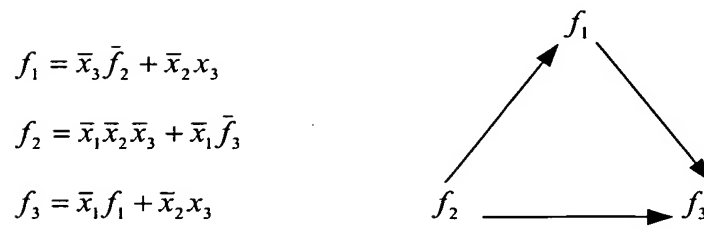


FIGURE 25

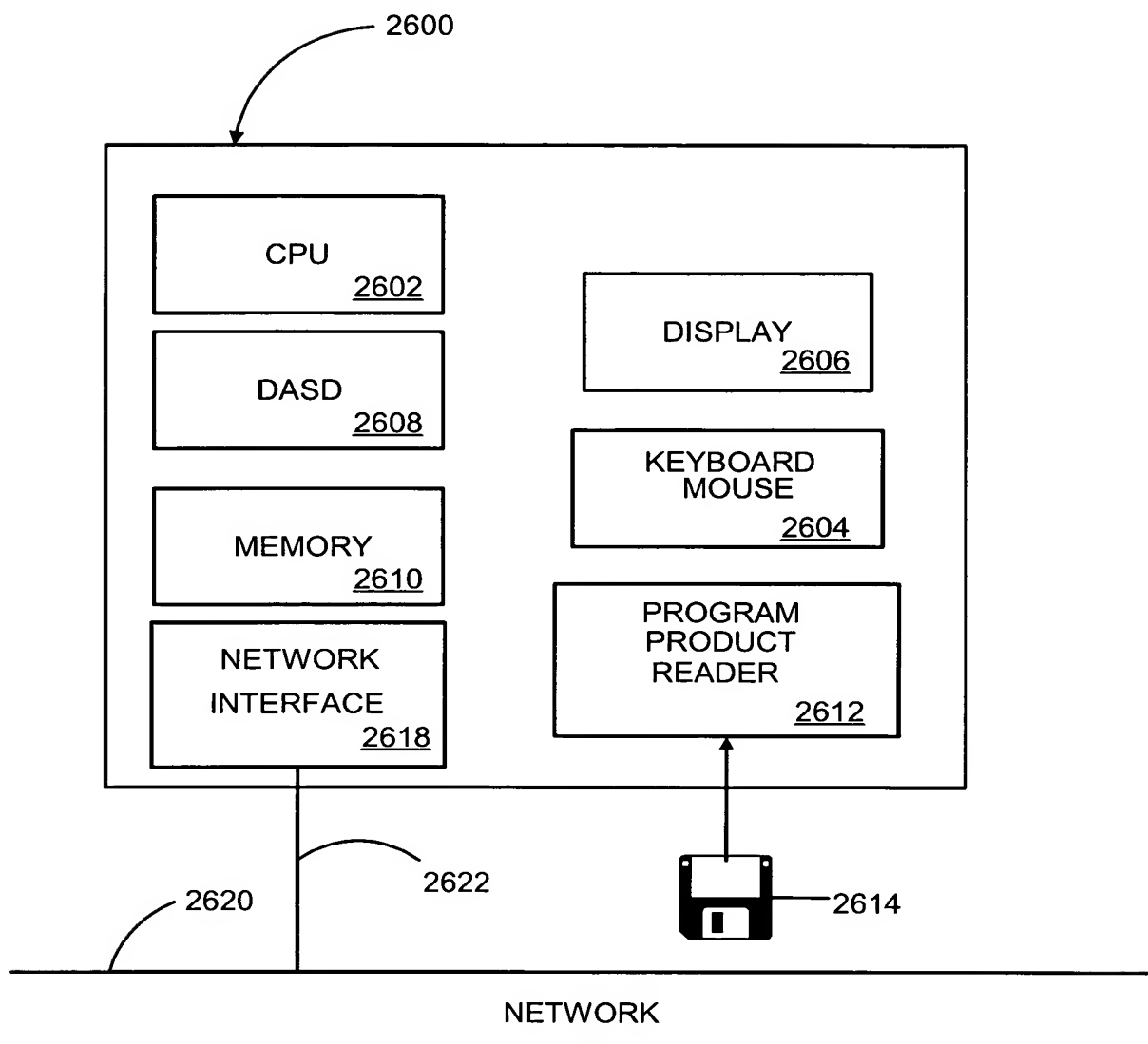


FIGURE 26